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(54) Title: COMPOSITIONS AND METHODS FOR DETECTING TARGET NUCLEIC ACID SEQUENCES UTILIZING FLANKING SEQUENCE ENZYME MOLECULES

(57) Abstract

Briefly stated, the present invention provides novel compositions and methods for detecting target nucleic acid sequences utilizing adjacent sequence-enzyme molecules. Within one aspect of the present invention, oligonucleotide-enzyme fusion molecules are provided, comprising an enzyme capable of cleaving scissile linkages and an oligonucleotide having the structure $(NA_1)_x$-$S_2$-$(NA_2)_y$ wherein $NA_1$ and $NA_2$ are nucleic acid sequences, S is a scissile nucleic acid linkage, x, y, and z are integers from 1 to 1,000 and n is an integer from 1 to 10.

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Interna tl Application No
PCT/CA 94/00448

A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 C12Q C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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[X] Further documents are listed in the continuation of box C.

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| Date of the actual completion of the international search | Date of mailing of the international search report |
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